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STEMPHYLIUM LEAF SPOT OF KALANCHOE

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In 1962, a specimen of Kalanchoe with leaf lesions resembling those of edema (2) was submitted to the DPI Bureau of Plant Pathology for diagnosis. Isolations from these necrotic areas consistently yielded a Stemphylium sp., and inoculation of Kalanchoe spp. with the fungus produced symptoms identical to those found in nature (3). This organism was subsequently named Stemphylium bolicki Sob. & Sey. (5). Later studies indicated that another Stemphylium species may also cause leaf spotting of Kalanchoe (4).

SYMPTOMS. Lesions first appear as raised subcircular brown to black spots, about 1-3 mm in diameter (Fig. 1). In many instances, these spots do not enlarge, but remain the same size for as long as 8 months (5). The fungus rarely sporulates on the leaf; thus, laboratory isolation is required to distinguish this disease from physiological edema.

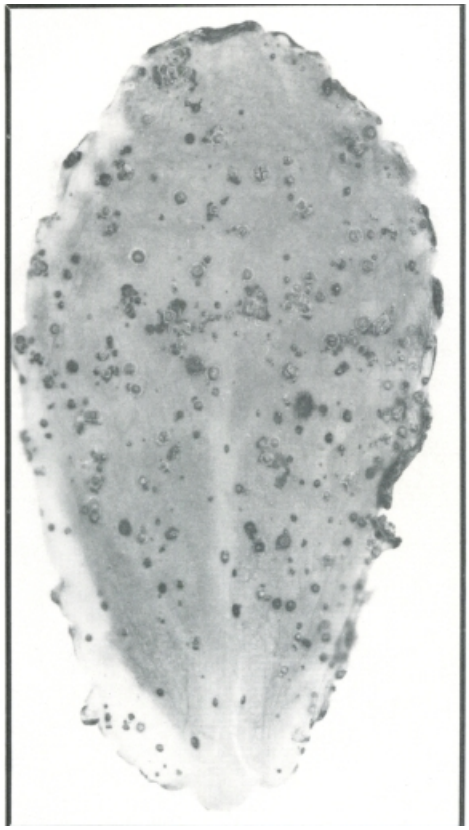

Fig. 1. Leaf of Kalanchoe showing characteristic raised lesions caused by Stemphylium bolicki. (DPI Photo #1029)

ECONOMIC IMPORTANCE. The fungus has been isolated from several species of Kalanchoe, as well as from Echeveria and Sedum. As is the case with many plants propagated for their ornamental value, leaf spots may render Kalanchoe unsalable.

DISEASE DEVELOPMENT. The fungus spores, often present on fallen leaves, are normally spread in splashing water (1). Disease development is favored by high temperature and high humidity, in contrast to the low temperature - high humidity conditions which are believed to favor edema.

CONTROL. Control can be achieved by manipulating cultural conditions. Foliage should be kept dry, plants should be adequately spaced to permit ventilation and reduce humidity, and fallen infected leaves should be removed and destroyed to reduce inoculum. Zyban, iprodione, and vinclozolin are EPA registered for use on Kalanchoe and may be effective as foliar protectants against this pathogen.

SURVEY AND DETECTION. Look for small brown raised spots, resembling edema, on the leaf surfaces.

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